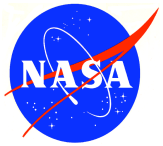


Turning Goals Into Reality 2003

National Aerospace Initiative (NAI)

Moderator: **Row Rogacki**
Director, NASA Space Technology Theme

Panelists: **Paul Piscopo, Department of Defense Research and Engineering**

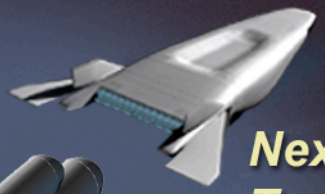
Steve Cook, NASA Next Generation Launch Technology Program

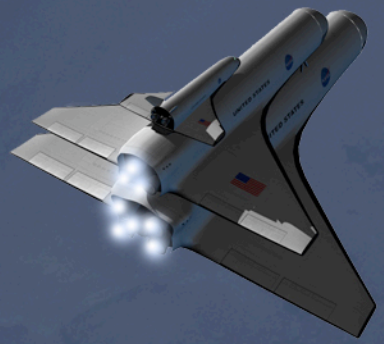
Col. Pam Stewart, Air Force Space Command

NASA's Integrated Space Transportation Plan (ISTP)

Space Shuttle Technology Upgrades

Orbital Space Plane (OSP)
- ISS Crew Rescue by 2010
- ISS Crew Transfer by 2012





SLI
SPACE LAUNCH INITIATIVE

Next Generation Launch Technology (NGLT)
- Technologies enabling near- and long-term advancements in U.S. space launch

National Aerospace Initiative (NAI)

NGLT
NEXT GENERATION LAUNCH TECHNOLOGY

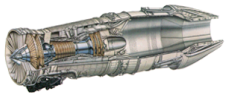
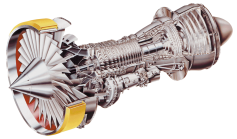
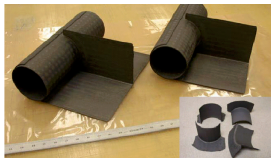
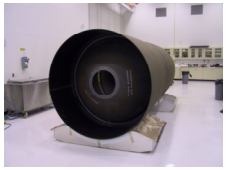
High Speed/
Hypersonics

Space Access
(Rocket or Air-breathing Engines)

Space
Technology

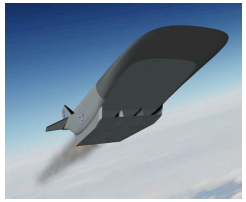
25-year National Plan to mature key technologies for NASA & DoD Needs

NASA / DoD Cooperation through the National Aerospace Initiative

Common Technologies

- Long life rocket engines
- Combined cycle propulsion
- Ram / scramjets
- Long life, lightweight airframe and tanks
- Durable thermal protection systems
- "All electric" subsystems
- Rapid turnaround ground and flight operations




NASA Objectives

- Scientific exploration
- Routine access to International Space Station
- Fostering new civil and commercial markets

DoD Objectives

- Homeland defense
- Operationally responsive space lift
- Rapid global strike

"The Department of Defense, the National Aeronautics and Space Administration and industry must partner in innovative aerospace technologies, especially in the areas of propulsion and power."

Commission on the Future of the U.S. Aerospace Industry